KSENZENKO, I.Ye. (Yaroslavl')

Sulfanilamide therapy of trachoma. Vest. oft. 33 no.4:26-30 Jl-Ag '54. (MLRA 7:8)

(TRACHOMA, therapy,
*streptocide)

KSENZENKO, I. Ye.

The Experience With Treatment of Blepharitis by Gramicidine Combined With Sulphanilamides

Voyenno-meditsinskiy zhurnal, No. 4, April 1956

KSENZENKO, I.Ye.

KSENZENKO, I.Ye.

Lindau-von Hippel disease; author's abstract. Vest.oft. 70 no.6: 39-40 N-D '57. (MIRA 11:1)

(EYE--DISEASES AND DEFECTS)

KSENZENKO, S. A.

Ksenzenko, S. A. "An artificial vagina for horses, with pressure regulator," Trudy Dnepropetr. s.-kh. in-ta, Vol. II-III, 1948, p. 91-93

SO: U-3261, 10 April 53, (Letopis 'zhurnal 'nykh Statey, No. 12, 1949)

[redacted], V. A.

Horse Breeding

Effect of pressure in the artificial vagina on the ejaculation of stallions. Trudy Dnepr. sel'khoz. inst. 4, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

S.A.
KSENZENKO [redacted] (Asst Professor Kiev Vet Inst)

"The Role of Artificial Insemination in the Fight Against Sterility in Cattle"

Report given at 13th Inter-VUZ (Higher Educational Insts.) Scientific-Industrial Conference, held February 1966 at Kiev Vet Inst.

KSENZENKO, S.A., kand.biolog.nauk

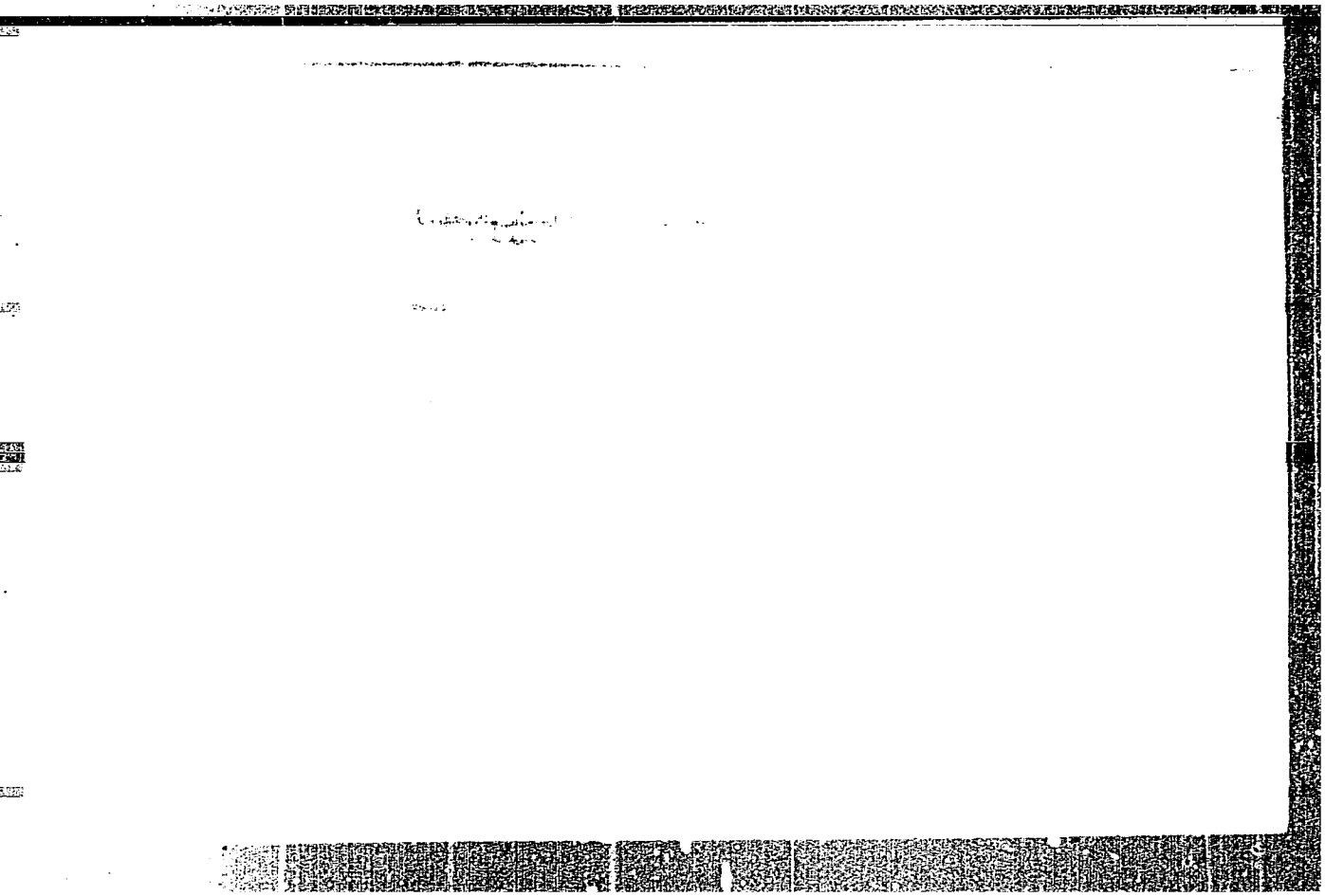
Work practices in eliminating sterility in cows on collective farms. Zhivotnovodstvo 21 no.9:58-59 S '59. (MIRA 13:1)
(Cows--Diseases and pests) (Trichomoniasis)

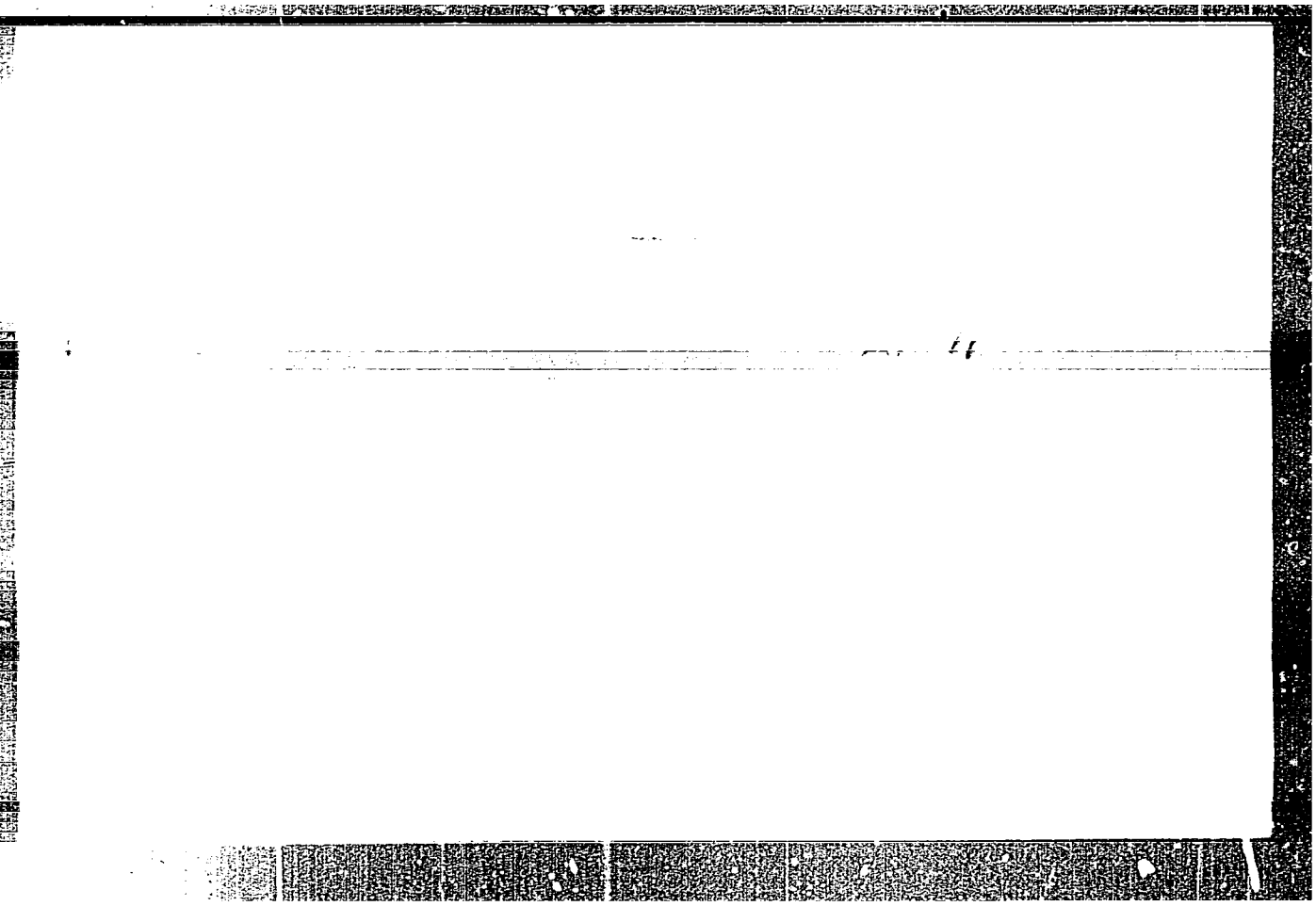
MATVEYEV, A.I.; KSENZENKO, S.A., kand.biolog.nauk

State farm station for artificial insemination servicing collective farm herds. Zhivotnovodstvo 23 no.2:53-54 F '61. (MIRA 15:11)

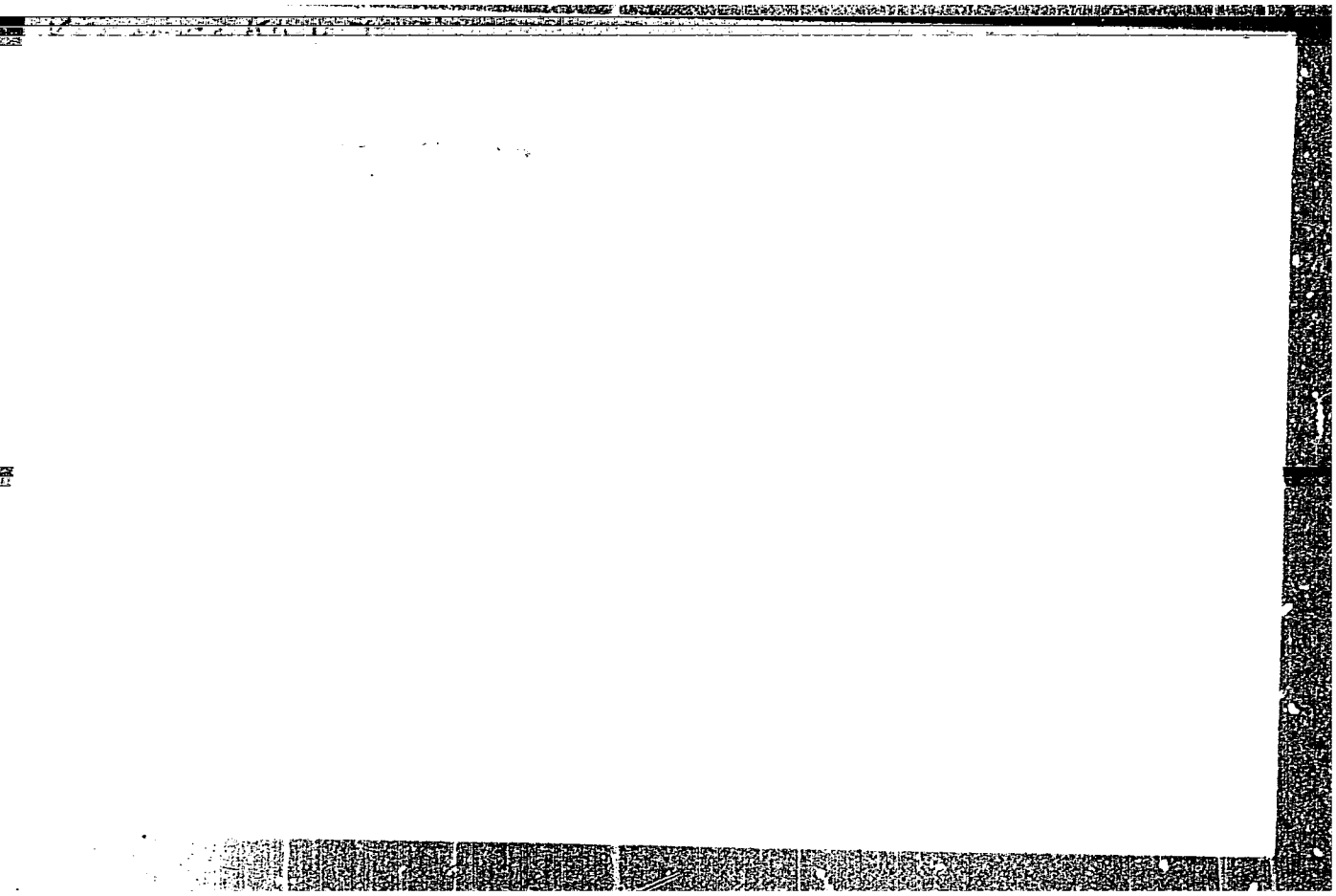
1. Zaveduyushchiy Gosudarstvennoy stantsiyey iskusstvennogo osemeneniya sovkhoza "Progress", Dnepropetrovskoy oblasti (for Matveyev).

(Dnepropetrovsk Province--Artificial insemination)

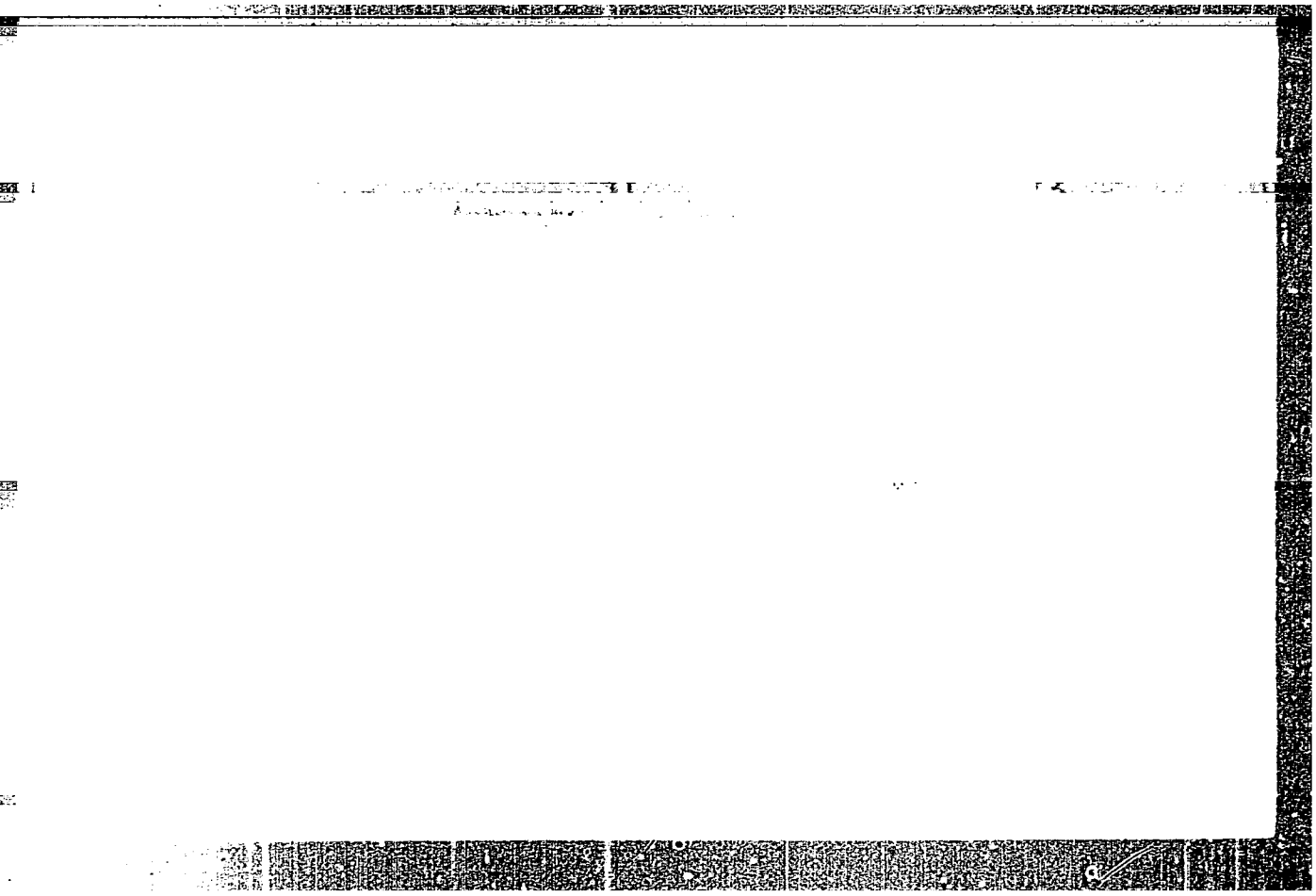




APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000827010005-8"



APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000827010005-8"



APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000827010005-8"

KSENZHENKO, Vladimir Ivanovich; STASINEVICH, Dmitriy Sergeyevich; URAZOV, Georgiy Grigor'yevich, akademik, red. [deceased]; BABUSHKINA, S.I., red.; SHPAK, Ye.G., tekhn.red.

[Technology of bromine and iodine] Tekhnologiia broma iioda. Pod obshchei red. G.G.Urazova. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry, 1960. 302 p. (MIRA 13:3)
(Bromine) (Iodine)

KSENZENKO, V. I.; YEROFEYEVA, K. A.

Kinetics of the chemisorption of bromine by liquid alkali absorbers.
Khim prom no. 3:207-210 Mr '64. (MIRA 17:5)

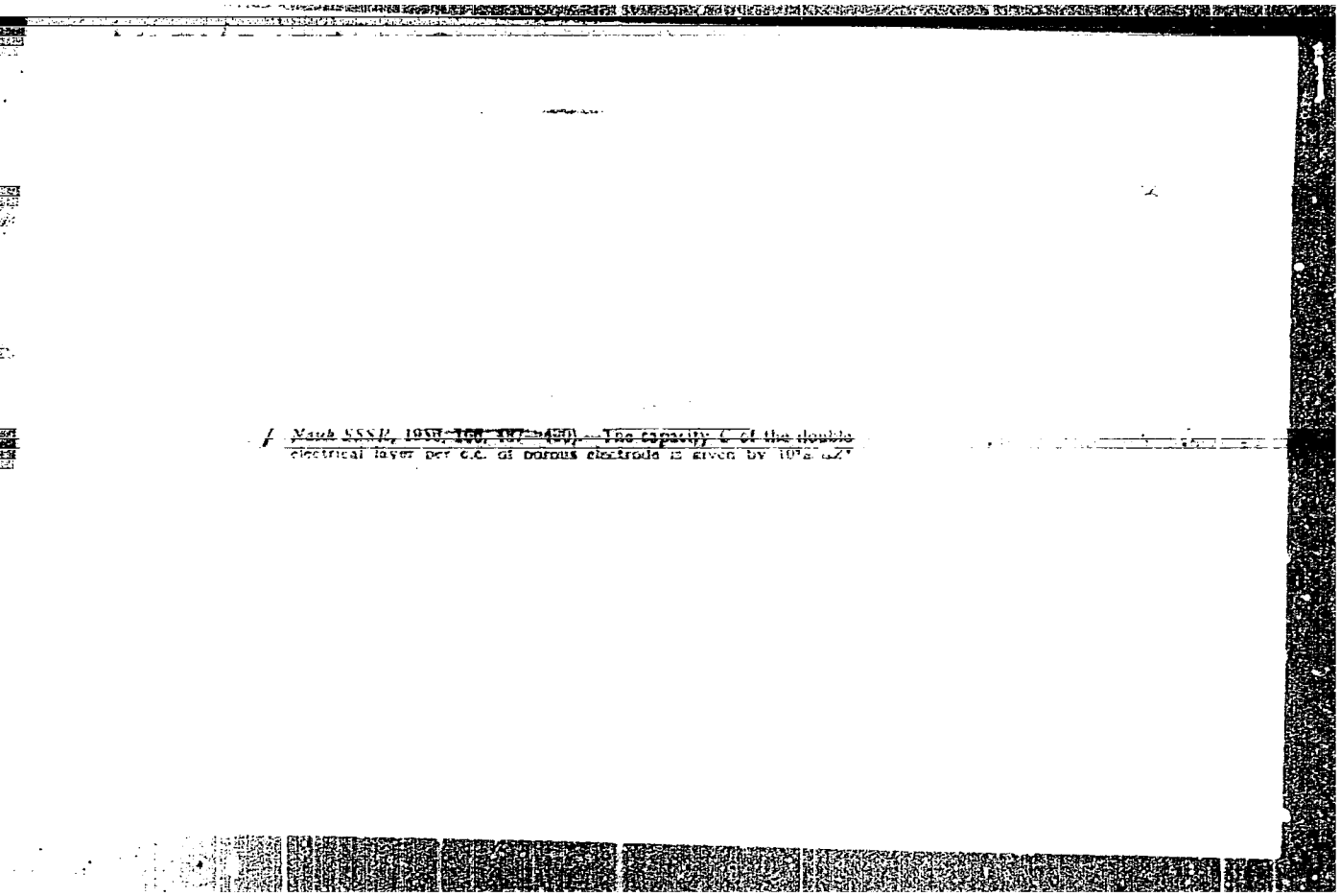
KOZENKO, V.I.; YEROFEYEVA, K.A.

Kinetics of the chemisorption of bromine by reducing absorbers.
Khim. prom. no. 4:260-265 Ap '64. (MIRA 17:7)

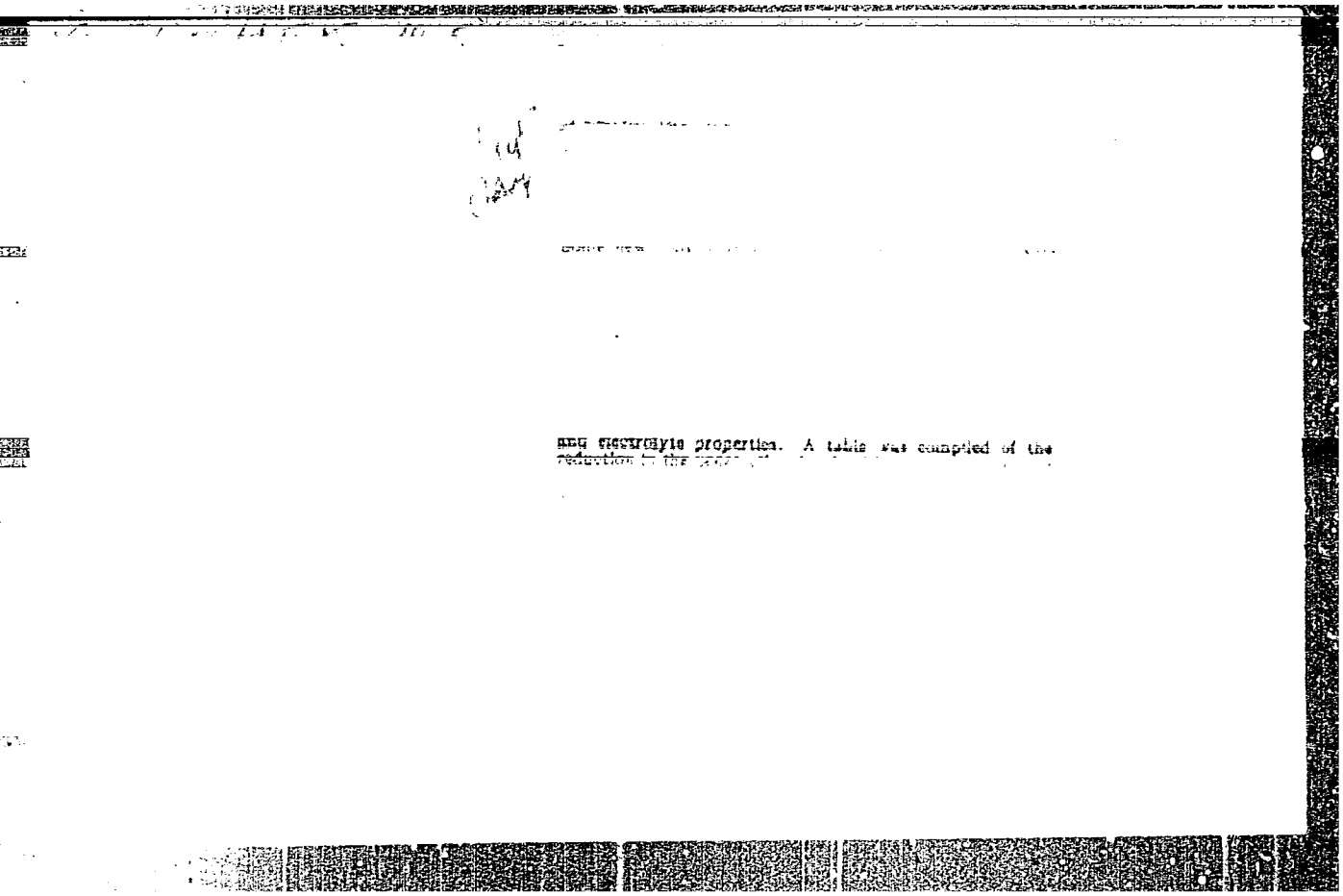
KSENZHEK, O.S.

Overvoltage in the evolution of chlorine in isoelectric systems.
Zhur. fiz. khim. 30 no.12:2812 D'56. (MLRA 10:4)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Overvoltage) (Chlorine)



/ *Nauk SSSR*, 1958, 120, 127–130). The capacity C of the double electrical layer per c.c. of porous electrode is given by $10^6 a \sqrt{Z^*}$



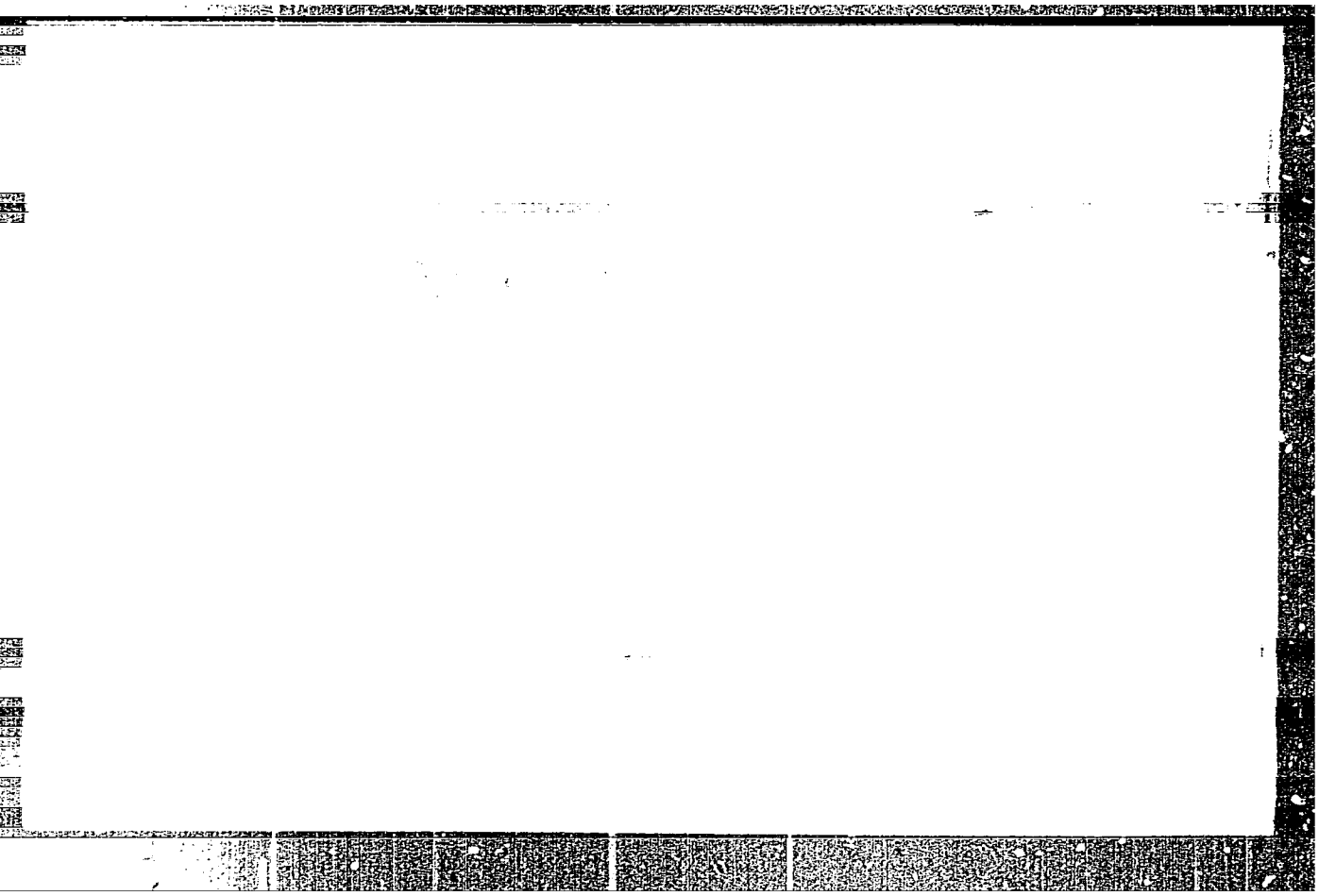
and electrolyte properties. A table was compiled of the

Ksenzhek, O.S

KSENZHEK, O.S.

Activation energy of electrode processes on porous electrodes. (MIRA 10:10)
Ukr.khim.zhur. 23 no.4:443-447 '57.

1.Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Electrodes) Porosity)



KSENZHEK, O. S.

5(4) PHASE I BOOK EXPLOITATION SOV/2216

Soveshchaniye po elektrokhimii. 4th, Moscow, 1956.

Trudy...; [sbornik] (Transactions of the Fourth Conference on Electrochemistry; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 868 p. Errata slip inserted. 2,500 copies printed.
Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk.

Editorial Board: A.N. Frumkin (Resp. Ed.) Academician, O.A. Yesin, Professor; S.I. Zhdanov (Resp. Secretary), B.N. Kabanov, Professor, S.I. Zhdanov (Resp. Secretary); B.N. Kabanov, Professor, Ya. M. Kolotyrkin, Doctor of Chemical Sciences; V.V. Losev, P.D. Lukovtsev, Professor; Z.A. Solov'yeva; V.V. Stender, Professor; and G.M. Florianovich; Ed. of Publishing House: N.G. Yegorov; Tech. Ed.: T.A. Prusakova.

PURPOSE: This book is intended for chemical and electrical engineers, physicists, metallurgists and researchers interested in various aspects of electrochemistry.

COVERAGE: The book contains 127 of the 138 reports presented at the Fourth Conference on Electrochemistry sponsored by the Department of Chemical Sciences and the Institute of Physical Chemistry, Academy of Sciences, USSR. The collection pertains to different branches of electrochemical kinetics, double layer theories and galvanic processes in metal electrodeposition and industrial electrolysis. Abridged discussions are given at the end of each division. The majority of reports not included here have been published in periodical literature. No personalities are mentioned. References are given at the end of most of the articles.

Ksenzhek, O.S., and V.V. Stender (Dnepropetrovsk Institute of Chemical Technology imeni F.E. Dzerzhinskiy). Polarization of Graphite Electrodes During the Anodic Separation of Chlorine 823

Buyanova, N. Ye., and G.A. Tsyganov (Institute of Chemistry, Academy of Sciences, UzSSR). Hydrogen Overvoltage at Electrodes With Homogeneous Surface 827

Rakov, A.A., E.I. Mazova, and N.V. Kasatkin (Physicochemical Institute imeni L. Ya. Karpov). Mechanism of the Simultaneous Electrochemical Formation of Persulfuric Acid, Ozone and Oxygen at a Platinum Anode in Sulfuric Acid Solutions 834

Volkov, G.I., Z. L. Klitsa, Ye. K. Susorova and N. V. Cheremisina. Influence of Surface-Active Substances on the Rate of Decomposition of Sodium Amalgams 841

Il'in, G. G., and V.I. Skripchenko (Novocherkassk Polytechnic

Card 33/34

Transactions of the Fourth Conference (Cont.) SOV/2216

Institute imeni S. Ordzhonikidze). Influence of the Nature of an Electrolytic Cation on the Anode Process During the Electrolysis of Alkaline and Alkaline-Earth-Metal Chloride Solutions 845

Voronin, N.N. (Deceased), B. G. Prikhodchenko, A.A. Yedigaryan, O. V. Izbekova, I. G. Pavlenko, Ye. Kh. Ignatenko, and S.V. Tkachuk (Kiyev Polytechnic Institute). Electrolytic Reduction of Oxygen at Porous Cathodes 849

Discussion [N. A. Fedotov, R.I. Kaganovich, Ye. M. Kuchinskiy, G.M. Kokhanov, and contributing authors] 856

AVAILABLE: Library of Congress

TM/ec
9-30-59

Card 34/34

AUTHORS: Stender, V.V. and Ksenzhek, O.S. SOV/80-59-1-18/44

TITLE: Graphitized Anodes in Electrolysis of Aqueous Solutions of Chlorous Salts (Grafitirovannyye anody pri elektrolize vodnykh rastvorov khloristykh soley)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Nr 1, pp 110-121 (USSR)

ABSTRACT: The authors studied the functioning of graphite anodes in the electrolysis of chlorous solutions on 17 kinds of artificial graphites of various origin and structure. The methods employed in this investigation were based on the non-stationary polarization. As a result the data were obtained which characterize the kinetics of the process of chlorine separation on graphite, and information was secured on the magnitude of the specific surface of different kinds of graphites. In spite of the difference of the graphite kinds, the magnitude of exchange current during the chlorine separation is practically the same and equals to 5.10^{-6} amp/cm^2 at 20°C. The specific surface amounts to 0.8 to 1.5 m^2/g for the well-graphitized samples and 2.5 to 6 m^2/g for the less graphitized samples. The magnitudes of the actual density of current, effective electrode thickness and polarization under various conditions were calculated. It was established that the differences in the electrochemical behavior of various graphite samples were determined mainly by their structural properties.

Card 1/2

Graphitized Anodes in Electrolysis of Equeous Solutions of Chlorous Salts

There are 3 graphs, 1 diagram, 3 tables and 22 references, 14 of which are Soviet, 4 English, 1 American and 3 German.

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskiy institut (Dnepropetrovsk Chemico-Technological Institute)

SUBMITTED: June 13, 1957

Card 2/2

5.4300

77629
SOV/80-33-2-4/52

AUTHORS: Ksenzhek, O. S., Solovey, Z. V.

TITLE: Kinetics of Graphite Oxidation With Hypochlorite and Hypochlorous Acid

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2 pp 279-283 (USSR)

ABSTRACT: The article describes an investigation of the kinetics of graphite oxidation with hypochlorous acid and hypochlorite. The effects of the graphite surface area, solution pH, and temperature on the oxidation rates are given in Fig. 1 through 3. Experiments were conducted with three different types of powdered graphite. The reaction rate constants were obtained using a large excess of graphite powder. At 70° C the graphite oxidation rate was found for acid solutions (pH < 6) to be $K \approx 4 \cdot 10^{-7}$ cm/sec and basic solutions $K \approx 0.6 \cdot 10^{-7}$ cm/sec. It was found that the graphite oxidation

Card 1/4

Kinetics of Graphite Oxidation With Hypochlorite and Hypochlorous Acid

77629
SOV/80-33-2-4/52

rate in an acid solution increases approximately by a factor of 2 when there is a great excess of NaCl. Activation energy for the reaction between graphite and hypochlorite was found to be approximately 12 kcal and between graphite and hypochlorous acid -- 23 kcal. There are 3 figures; and 8 references, 3 U.S., 2 German, 3 Soviet. The 3 U.S. references are: M. Janes, Trans. Electroch. Soc., 77, 13 (1940); H. H. Heller, Trans. Electroch. Soc., 87, 501 (1945); M. Janes, N. Johnson, E. Pilcher, J. Electroch. Soc., 102, 474 (1955).

ASSOCIATION: Dnepropetrovsk Chemical and Technological Institute (Dnepropetrovskiy khimiko-tekhnologicheskiy institut)

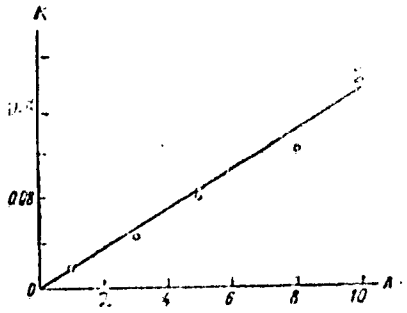
SUBMITTED: October 31, 1958

Card 2/4

Kinetics of Graphite Oxidation With Hypochlorite and Hypochlorous Acid

77629
SOV/80-33-2-4/52

Fig. 1. Graphite decomposition rate K as a function of the amount of graphite (A). pH = 8.04, t = = 70° C.



Card 3/4

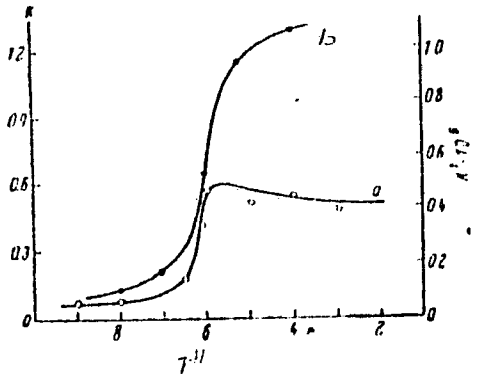


Fig. 2. Graphite oxidation rate constant as a function of pH. (a) pure hypochlorite solution, (b) 240 g/l hypochlorite solution.

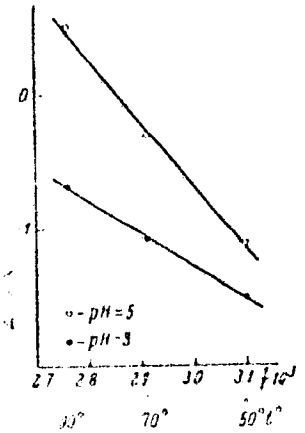


Fig. 3. Graphite oxidation rate K as a function of temperature.

Card 4/4

STENDER, Vladimir Vil'gel'movich, prof., doktor tekhn. nauk. Prinimali uchastiye: KSENZHEK, Oktavian Stanislavovich, dots., kand. tekhn. nauk; KAZINA, Ninel' Fedorovna, dots., kand. tekhn. nauk; SAGOYAN, Leonid Nikolayevich, dots., kand. tekhn. nauk; SLUTSKIY, Iosif Zinov'yevich, dots., kand. tekhn.nauk; GALINKER, I.S., prof., otv. red.; TRET'YAKOVA, A.N., red.; TROFIMENKO, A.S., tekhn. red.

[Applied electrochemistry] Prikladnaia elektrokhimiia. Khar'kov, Izd-vo Khar'kovskogo gos.univ. im. A.M.Gor'kogo, 1961. 538 p. (MIRA 15:6)

(Electrochemistry)

S/080/62/035/008/004/009
D202/D308

AUTHORS: Ksenzhek, O.S., and Chaykovskaya, V.M.

TITLE: The anodic oxidation of graphite

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 8, 1962, 1786 - 1790

TEXT: A continuation of a previous work; in the present study the authors attempted to obtain fundamental data concerning the velocity of the anodic process, when its effect is the evolution of O_2 or formation of the reaction products of O_2 with graphite. The method consisted of plotting temperatures and low current density (20 - 80°C and 15 μa/cm^2 respectively), and node polarization curves at 40° and 5 x 10-5 - 4 x 10-4 a/cm^3. During anodic polarization of graphite a gradual oxidation of its surface takes place, which is accompanied by a rise of potential. After prolonged polarization (up to 80 h) a stationary potential is established, which is approximately 150 mv more negative than that of oxygen in the same solution (in the pH range of 0-5). Further polarization causes a

Card 1/2

S/080/62/035/008/004/009
D202/D308

The anodic oxidation of graphite

change of this potential owing to the decrease of the rate of O_2 evolution or that of the decomposition of surface oxides. The fundamental kinetic characteristics of this process were: exchange current - 3.5×10^{-12} a/cm^2 at 20°C and 4.2×10^{-10} a/cm^2 at 80°C; the energy of activation - 16.6 kcal; pH of the solution (in the range 0-5) and the presence of Cl ions have no appreciable effects. There are 3 figures and 1 table.

ASSOCIATION: Dnepropetrovskiy khimiko-technologicheskiy institut imeni F.E. Dzerzhinskogo (Dnepropetrovsk Institute of Chemical Technology, imeni F.E. Dzerzhinskiy)

SUBMITTED: July 7, 1961

Card 2/2

KOMBRINK, G.E.

Polarization of fine porous electrodes. Zhur. fiz. khim. 36 no.3:633-637 Mr '62. (MIRA 17:8)

1. Dnepropetrovskiy khimicheskotekhnologicheskiy institut.

KSENJEK, O.S. [Ksenzhek, O.S.]; CEAIKOVSKAIA, V.M. [Chaykovskaya, V.M.]

Study of anodic oxidation process of graphite. Analele chimie 18 no.2:190-196 Ap-Je '63.

KSENZHAEK, O.S.

Capillary equilibrium in porous media with intersecting pores. Zhur. fiz. khim. 37 no.6:1297-1303 Je '63. (MIRA 16:7)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.
(Porous materials) (Capillarity)

KSENZHEK, O. S.

"Macrokinetics of Processes Occurring on Porous Electrodes."

Report presented at the 14th meeting CITCE, Intl. Comm. of Electrochemical Thermodynamics and Kinetics, Moscow, 19-25 Aug 63.

Chemico-Technological Institute, Dnepropetrowsk, USSR.

KSENZHEK, O.S.

Transient processes in the charging of porous electrodes.
Zhur. fiz. khim. 37 no.9:2007-2011 S '63. (MIRA 16:12)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.

KSENZHEK, O. S. and STENDER, V. V.

"Porous electrodes and their application in electrochemical processes"

Report presented at the Intervuz Conference on Electrodeposition of Nonferrous Metals, Ural Polytechnical Institute im S. M. Kirov, Sverdlovsk, held from 27-30 May 1963.

(Reported in Tsvetnyye Metally, No. 10, 1963, pp. 82-84)
JPRS 24,651 19 May 64

S/0032/64/030/002/0237/0238

ACCESSION NR: AP4013316

AUTHORS: Ksenzhek, O. S.; Kalinovskiy, Ye. A.; Koshel', N. D.

TITLE: Laboratory electrolyzer for the production of hydrogen

SOURCE: Zavodskaya laboratoriya, v. 30, no. 2, 1964, 237-238

TOPIC TAGS: hydrogen, hydrogen production, electrolysis, electrolyzer, outlet tube electrode, nickel, powdered nickel, microgranular nickel, amalgamated electrode

ABSTRACT: The main parts of the electrolyzer consist of an electrode, and a cathode which is a flat, round porous nickel box with a cavity inside, provided with an outlet tube for the hydrogen formed during electrolysis. The walls of the box are a multilayered structure of pressed and sintered powdered nickel, the outer layer (approximately 0.5 mm thick) having the finest structure, while the second and third layers are made of macrogranular nickel. The issuing material consists of carbonyl nickel with particle size averaging 5 μ. To prepare the macrogranular layer, the fine material is first sintered into agglomerates of 200-250 μ which are mixed with ammonium bicarbonates, pressed in a mold at 1.5 T/cm^2, then sintered for 4 hours while the temperature is brought up to 620-700C. A hole is drilled to the central cavity and a metallic tube welded into it. The porous electrode is then plated with

Card 1/3

ACCESSION NR: AP4013316

copper, followed by amalgamation with mercury. When an electrode with pores 2 μ in diameter is in operation, the pressure of hydrogen within the pores amounts to 1 atm, and a continuous flow of hydrogen passes through the tube. The prepared electrodes are mounted in the electrolyzer with solid anodes of nickel. Orig. art. has: 3 figures.

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskiy institut (Dnepropetrovsk Chemical and Technological Institute)

SUBMITTED: 00 DATE ACQ: 26Feb64 ENCL: 01

SUB CODE: CH NO REF SOV: 000 OTHER: 001

Card 2/3

KOMISSAR, O.S.

Working range of gas-diffusion electrodes under concentration polarization operating conditions. Ukr. khim. zhur. 30 no.8: 810-817 '64. (MIRA 17:11)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.

KSENZHEK, O.S.; KALINOVSKIY, Ye.A.; BASKIN, Ye.L.

Conductivity of the electrolyte in porous nickel electrodes. Zhur.prikl. khim. 37 no. 5:1045-1052 My '64. (MIRA 17:7)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.

[illegible], O.S.; KALINOVSKIY, Ye.A.

Oxidation of hydrogen on a porous nickel electrode. Zhur. prikl. khim. 37 no.6:1256-1260 Je '64. (MIRA 18:3)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.

KISELEVA, E.S.; KALINOVSKIY, Ye.A.; TYUYAGINNYY, V.P.

Diffusion and flow of gas through porous nickel electrodes. Zhur. prikl. khim. 37 no.12:2619-2624 D '64.
(MIRA 18:3)

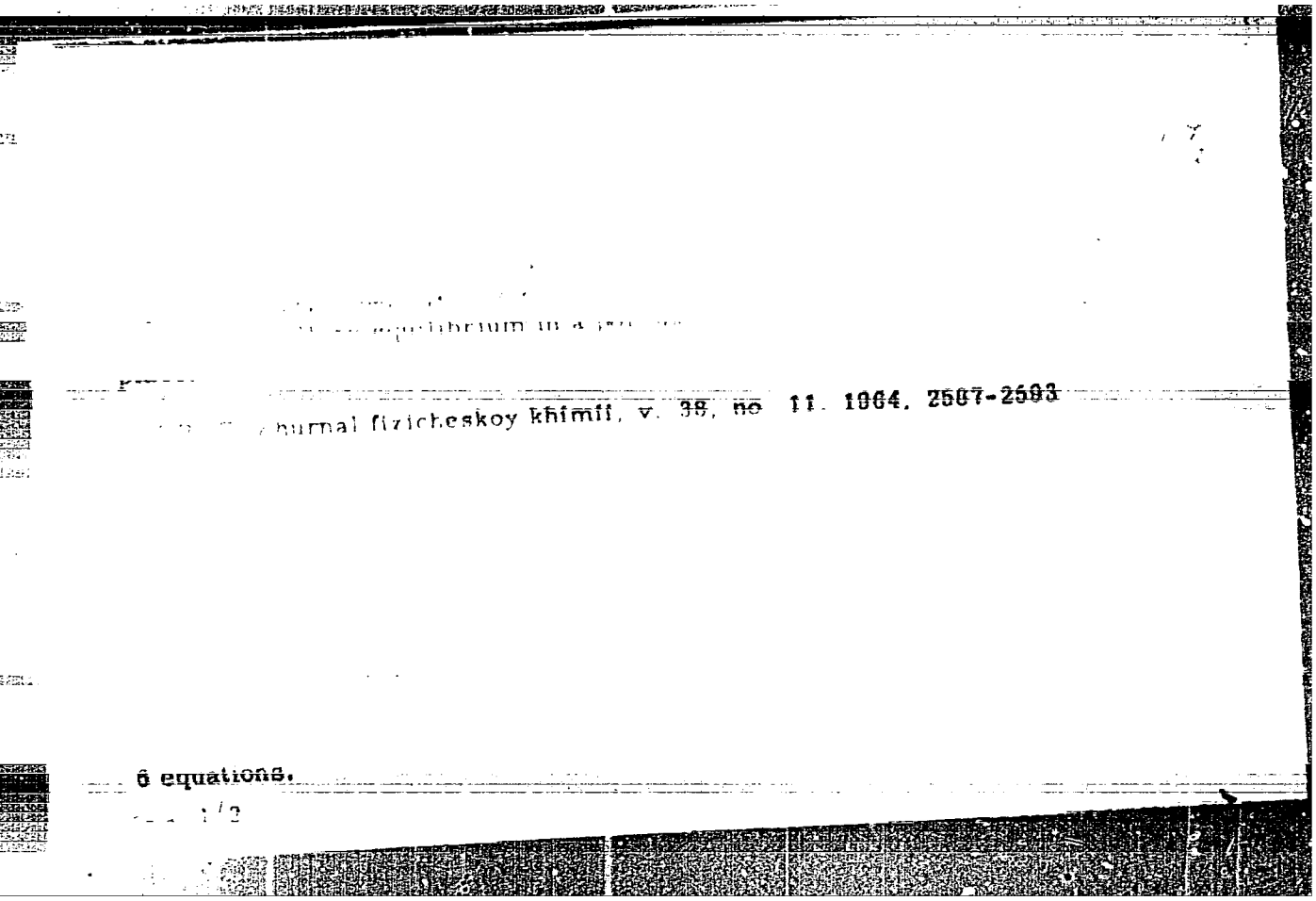
KSENZHEK, O.S.

All-Union Seminar on the theory of porous electrodes. Zhur. fiz. khim. 38 no.6:1706 Je '64. (MIRA 18:3)

KSENZHEK, O.S.

Transient processes in the charging of porous electrodes. Part 2.
Zhur. fiz. khim. 38 no.7:1846-1849 Jl '64. (MIRA 18:3)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.

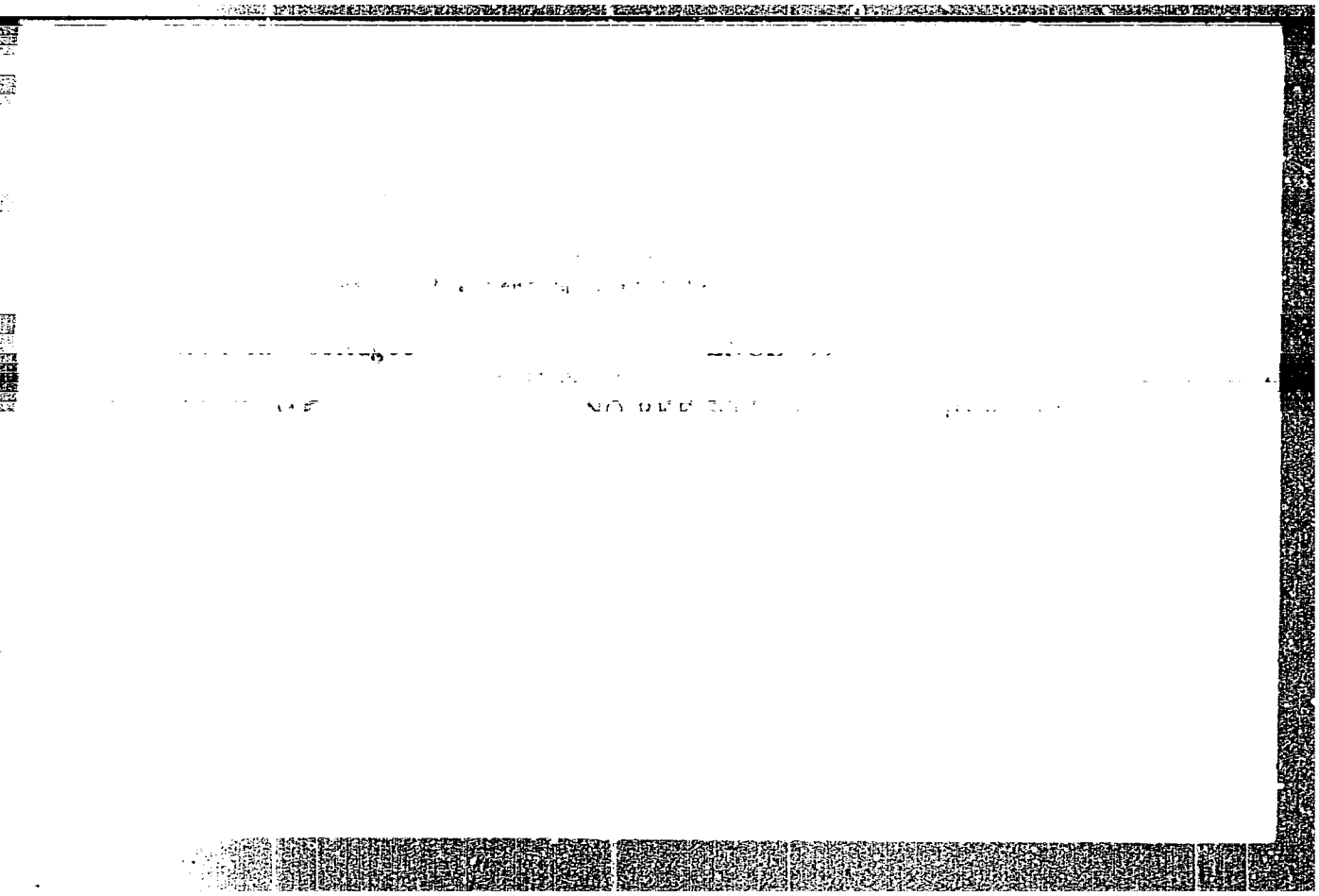


equilibrium in a

Zhurnal fizicheskoy khimii, v. 38, no 11, 1964, 2587-2593

6 equations.

1/2



KSENZHEK, O.S.; KALINOVSKIY, Ye.A.

Scheme of compensation of ohmic voltage drop in polarization measurements. Ukr. khim. zhur. 31 no.6:640-641 '65. (MIRA 18:7)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut.

KSENZHEK, O. S.

"Transport phenomena and macrokinetics of electrochemical processes on porous electrodes."

report submitted for Intl Mtg on Fuels Cells Research & Their Applications, Brussels, 21-24 Jun 65.

Inst of Chemical Technology, Dnepropetrovsk.

KSENZHUK, I.G.

PHASE I BOOK EXPLOITATION SOV/4857

Kozhevnikov, Vasiliy Yakovlevich, Ivan Gavrilovich Ksenzhuk, and Ivan Ivanovich Khudyakov

Gorizontal'no-kovochnyye mashiny; ustroystvo, elementy rascheta i obsluzhivaniye (Horizontal Forging Machines; Arrangement, Fundamentals of Designing, and Servicing) Moscow, Mashgiz, 1960. 236 p. 6,000 copies printed.

Reviewer: I. I. Girsh, Candidate of Technical Sciences; Eds.: A. V. Sivay, Docent, and D. B. Rikberg; Chief Ed. (Southern Department, Mashgiz): V. K. Serdyuk, Engineer.

PURPOSE: This book is intended for technical personnel in factories, design bureaus, and scientific research organizations.

COVERAGE: The book contains detailed descriptions of Soviet-made horizontal forging machines (upsetters). The design calculations of these machines are also given. Basic operational problems (setting-up, control, servicing) are examined, and brief comparative data on non-Soviet upsetters are presented. New

Card ~~1/9~~

constructional solutions of the subassemblies of machines, based on experience gained during their design, manufacture, operation and repair are given special attention. The upsetters built by the Novo-Kramatorskiy mashinostroitel'nyy zavod (New Kramatorsk Machine-Building Plant) have been used to illustrate design calculations, and machine operation and servicing. Chs. II, III, V, IX, and Secs. 1 and 3 of Ch. I were written by V. Ya. Kozhevnikov; Chs. IV, VI, VII, VIII, X, XI, XII, and Sec. 2 of Ch. XIII were written by I. G. Ksenzhuk; I. I. Khudyakov wrote Chs. XIV, and XV, Sec. 2 of Ch. I, and Sec. 1 of Ch. XIII. The theoretical material of Chs. II, III, IV and V pertaining to the construction of kinematic diagrams of the clamping mechanism, the construction of the cycle diagram and the determination of the angles of action of cams were taken primarily from works published during 1946-1956 by I. I. Girsh,Candidate of Technical Sciences, (TsNIITMASh). The authors thank Engineers B. S. Karasev, Yu. N. Lyubimov, and A. I. Shilo for their help. There are 21 references, all Soviet.

KSENZHUK, I.G.

Horizontal forging machines. Sbor. Novo-Kram. mashinostroi. zav. no.3:13-33 '59. (MIRA 17:1)

S/115/60/000/05/11/034
B007/B011

AUTHORS: Breydo, I. Ya., Ksenzhuk, N. K.

TITLE: Electronic Quick-operation Tachometer With Programing and Decatrons

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 5, pp. 17-20

TEXT: A description is given here of an electric pulse speedometer in which the recording of feeler pulses as well as the crystal frequency division occur with the aid of decatrons. The speedometer is provided with a programing system. It permits the automatic recording of pulses within a given period, and thereupon extinguishes the recording and begins a new recording period. It measures speeds of < 0.1 to $2 \cdot 10^4$ rpm with a maximum error of 10^{-2}%. The electronic block consists of the following assemblies shown in Fig. 1: input assembly, counter, timer, programing assembly, and feed assembly. The input assembly is shown in Fig. 2, the programing assembly in Fig. 4. The counter consists of decatrons. The circuits used in this system for the decatron starting had been described in the papers of Refs. 3, 4, 5. The counter consists

Card 1/2

Electronic Quick-operation Tachometer With Programing and Decatrons

S/115/60/000/05/11/034
B007/B011

of six cascades. The timer consists of a 10-kc quartz generator, a buffer stage, a multivibrator, and four frequency divider stages with decatrons. The mode of operation of the device is described and explained. The diagram of Fig. 5 shows the sequence of the control- and working pulses. It is pointed out that the speedometer described here can be utilized, apart from the rpm measurement, also for the frequency measurement up to 20-25 kilocycles, for counting the nonperiodic pulses (e.g., of a counter of nuclear particles) at $\tau < 50\mu sec$, as well as in production controls based on the count of the number of pieces. There are 5 figures and 5 references: 4 Soviet and 1 English.

Card 2/2

KSENZOV, D.G.

Two cases of invagination in hemorrhagic vasculitis. Pediatriia 37 no.11:67-70 N '59. (MIRA 13:3)

1. Iz khirurgicheskogo otdeleniya (zaveduyushchiy - M.P. Senatova) detskoy bol'nitsy imeni Dzerzhinskogo (glavnyy vrach A.N. Kudryashova).
(INTUSSUSCEPTION etiology)
(PURPURA complications)

KSENZOV, D.G.; RABIN, A.G.

Appendicitis related to ascariasis in children. Sov.med. 25 no.12: 130-132 D '61. (MIRA 15:2)

1. Iz khirurgicheskogo otdeleniya (zav. M.P.Sanatova) detskoy bol'nitsy imeni Dzerzhinskogo (ispolnyayushchiy obyazannosti glavnogo vracha F.F.Malomuzh), Moskva.
(APPENDICITIS) (ASCARIDS AND ASCARIASIS)

KSENZOV, D.G.; KLEYMENOVA, I.I.

Acute cholecystitis in children. Pediatriia no.8:18-21 '62.
(MIRA 15:10)

1. Iz khirurgicheskogo otdeleniya (zav. M.P.Senatova) Klinicheskoy detskoy bol'nitsy No. 9 imeni F.E.Dzerzhinskogo (glavnyy vrach A.N.Kudryashova), Moskva.
(GALL BLADDER—DISEASES)

KSENZOV, D.G.

Diverticulum of the left ventricle of the heart in a child. Vop. okh.mat.i det. 7 no.7:78-79 Jl '62. (MIRA 15:11)

1. Iz khirurgicheskogo otdeleniya (zav. M.P.Senatov) klinicheskoy detskoy bol'nitsy No. 9 imeni F.E.Dzerzhinskogo (glavnyy vrach A.N.Kudryashova) Moskvy.
(HEART--ABNORMITIES AND DEFORMITIES)

TSIRLIN, B.M., inzhener; KSENZUK, F.A., inzhener.

Heating and rolling large stainless steel ingots. Stal' 16 no.2: 140-143 F '56. (MLRA 9:5)

1. Zavod "Zaporozhstal'".
(Steel, Stainless) (Rolling (Metalwork))

Ksenzuk, F. A.

133-10-14/26

AUTHOR: Filonov, V. A., Ksenzuk, F. A., Lola, V. N., and Khudas, A. L. Engineers.

TITLE: Production of Hot Rolled Plates from the Kh18N25S2 Steel. (Proizvodstvo Goryachekatanogo Lista Iz Stali Kh18N25S2).

PERIODICAL: Stal', 1957, No.10, pp. 917-918 (USSR).

ABSTRACT: Heating of 10.5 t. ingots from X18H25C2 steel and their rolling into slabs, as well as subsequent heating of slabs and their rolling into plates was investigated in order to determine the most suitable practice. According to ГОСТ-5632-51, the above steel should have the following composition: 0.30 - 0.40% C; ≤1.5% Mn; 2.0-3.0% Si; ≤0.035% P; ≤0.025% S; ≤17.0-20.0% Cr; 23.0-26.0% Ni. The following heating practice was adopted; temperature of the pit during charging 950°C; rate of heating until soaking period 80-100°C/hr, the temperature of walls during soaking 1200-1220°C; duration of soaking 2 hours 45 min.; total heating time 6 hours 10 min. Two ingots were rolled into slabs (115 x 1050 mm) from one heating in 39 and 33 passes respectively. One ingot was rolled with intermediate heating after 16 passes (thickness 400 mm) for 1 hour 20 min. at 1220°C and subsequent finishing in 23 passes. The maximum value of absolute reduction per pass did not exceed 10-15 mm. The surface quality of all ingots was approximately the

Card1/2

Production of Hot Rolled Plates from the Kh18N25S2 Steel.

same (the depth of cracks reached up to 10 mm). Crop ends of the head part of ingots amounted to 18.5 -20% and of bottom part 4.2 - 4.8% Ccoled slabs were straightened and machined, the loss of metal in machining reached up to 25% (Table 1). Slabs were heated for 3 hours 15 min. at a temperature of 1260°C (Table 2) and rolled on a ten stand continuous hot rolling mill into plates of a cross-section 4 x 1030 mm (rolling conditions - Table 3). Retention of slabs on the mill causes a sharp cooling of their surface making further rolling impossible. Rolling should be carried out at maximum permitted temperatures, therefore water cooling of rolls should be discontinued. Due to discontinuation of cooling, rolling of slabs from the above steel on a continuous mill can be carried out only in small lots. There are 3 tables and 1 Slavic reference.

ASSOCIATION: Zaporozhstal' Works. (Zavod Zaporozhstal').

AVAILABLE: Library of Congress

Card 2/2

Ksenzuk, F.A.

133-2-19/19

AUTHORS: Filonov, V.A., Podgorodetskiy, A.A., Ksenzuk, F.A. and Lola, V.I. (Engineers)

TITLE: From Experience in Production of Two Layer (Clad) Ingots and Slabs (Opyt proizvodstva dvusloynykh slitkov i slabov)

PERIODICAL: Stal', 1958, Nr 2, pp.188-191 (USSR)

ABSTRACT: The technology of production of clad ingots and slabs from steels 20K and X18H12M27 developed on the Zaporozhstal' Works is described. The method consists of teeming steel 20K into an ingot mould into which a plate from stainless steel was fixed (Figs.1, 2). The preparation of stainless plate, heating (Table 2) and rolling clad ingots, dimensions of clad slabs (Table 2) and mechanical properties of clad plate produced (Table 3) are given. There are 3 tables and 4 figures.

ASSOCIATION: Zaporozhstal' Works (Zavod "Zaporozhstal'")

AVAILABLE: Library of Congress.

Card 1/1

18.3200,18.5100

77457
SOV/133-60-1-18/30

AUTHORS: Chirkin, V. M., Ksenzuk, F. A. (Engineers)

TITLE: Causes of Swelling of Carbon Steel Slabs

PERIODICAL: Stal', 1960, Nr 1, pp 59-62 (USSR)

ABSTRACT: This is a report concerning a new defect of metal at the "Zaporozhstal'" Plant (zavod "Zaporozhstal'"), namely, swelling of the slabs, which appeared during the reduction of ingots and also during heating of slabs in continuous furnaces and rolling them on a thin sheet mill. This resulted in the loss of metal and jamming of strips in the finishing group accompanied by the breakdowns of rolls. The analysis of samples of gas, taken from slab's cavities, under the direction of I. A. Goncharov (Engineer), by drilling under water, showed the following composition(%):

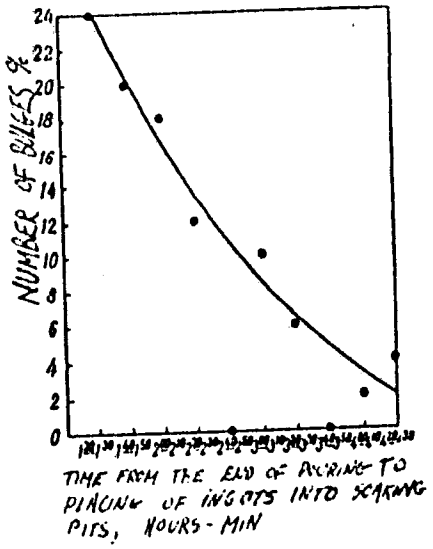
Card 1/6

Type of steel	H_2	CO	CO_2	N_2	CH_4
St 3 kp	65.0	22.0	5.0	8.0	–
St 3 kp	59.0	13.8	0.3	26.9	–
St 3 ps	52.0	23.0	12.0	12.7	0.3

The check of heating-temperature schedule in the soaking pits for 25 melts (for swollen slabs) gave the following results: (1) number of melts with temperature in all chambers of $\leqslant$ 1,360° C (in keeping with instructions), 5; (2) with temperature in one or several chambers of 1,370-1,390° C, 9; (3) with temperature in one or several chambers of $\leqslant$ 1,400° C, 11. Therefore, in 20 out of 25 melts the temperature in one or several chambers was higher than that prescribed by the instructions. Some special tests were conducted

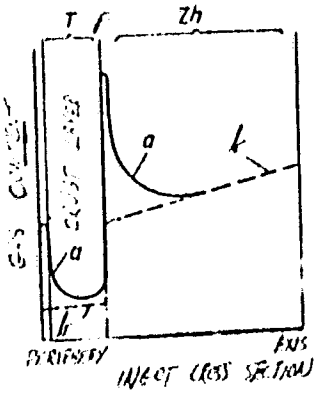
with participation of D. I. Shirinskiy, V. N. Lola, A. L. Khudas, and N. V. Pal'chik (Engineers) for verification of the effect of heating of ingots swelling of the slabs (see Fig. 5). The authors also give a diagram of change in gas content during the crystallization of the ingot. The authors mention that in the experimental study of pouring steel St 3 kp, the aftercharge of metal surface (before capping) by ground ferrosilicon was introduced by suggestion of A. I. Marinov and D. I. Shirinskiy. The authors arrived at the following conclusions. (1) The swelling of slabs from carbon steel during rolling of ingots on a slabbing mill (when heating the slabs in continuous furnace and rolling same into strip) is explained by the formation of cavities in the ingots. These cavities are filled with highly compressed gases. (2) The abundant liberation of gases in the inner cavities of the ingot is caused first of all by the high general saturation of steel with gases, by the rapid formation of hard crust in the upper portion of the ingot, and by the retarded crystallization of

Fig. 5. The relationship between the number of swellings in slabs and the time elapsed between the end of pouring and placing ingots into soaking pits.



Card 4/6

Fig. 6. A diagram of change in gas content in the section of crystallizing ingot (according to I. N. Golikov, Stal', 1954, Nr 12): (a) probable gas content in the process of crystallization; (b) equilibrium gas content (T, solid metal; Zh, liquid metal; F, front of crystallization).



Card 5/6

metal. (3) For prevention of the above, there should be no deviations from the technological instructions: no decrease in the speed of burning out of carbon during rimming heat; no feeding into the furnace of undried slag-forming oxidizers and reducers; no tapping of steel into the undried ladle or mixing of metal with slag during tapping and pouring of melt. It should not be allowed: (a) to cover the ingots too early with lids; (b) to move the ingots too early into the soaking pits, or stock-piling same; (c) to increase the temperature of heating ingots in the chamber and to increase the duration of holding the ingots at elevated temperatures. A combined effect of some of the above factors can result in swollen slabs. (4) The practical measures taken by the plant in accordance with the theoretical analysis of the mechanism of formation of swollen slabs (which can be a subject of discussion) proved to be sufficiently effective to prevent the reappearance of the defects. There are 6 figures; and 3 Soviet references.

ASSOCIATION: Central Scientific Research Institute of Ferrous Metallurgy and the "Zaporozhstal'" Plant (TsNIIChM i zavod "Zaporozhstal'")

KSENZUK, F.A., inzh.; LOLA, V.N., inzh.; PAL'CHIK, M.V., inzh.

Investigating the heating and rolling of electrical steel slabs. Stal' 20 no.8:738-739 Ag '60. (MIRA 13:7)

1. Zavod "Zaporozh'stal'."
(Rolling(Metalwork))

S/133/61/000/003/013/014
A054/A033

AUTHORS: Ksenzuk, F. A., Engineer; Troshchenkov, N. A., Engineer

TITLE: The causes of blister formation on 08kp (08kp) cold-rolled steel sheets

PERIODICAL: Stal', no. 3, 1961, 274 - 276

TEXT: There are many rejects among the cold rolled 08kp steel sheets principally used for gasoline containers and car bodies, on account of blister formation. The blisters (1 - 5 mm wide, 2 - 50 mm long) are as a rule found after annealing on the surface, in the sheet centre 200 - 250 mm from the edges. Upon studying the microstructure of 164 specimens from 19 heats it was established that blisters mainly form in those parts of the sheets which contain a large quantity of non-metallic (siliceous) inclusions and especially, when these inclusions are near the surface. According to Ref. 1 (G. K. L'vov: Metallographic Principles of Producing Thin Steel Sheets, Khar'kov-Moscow, Metallurgizdat, 1949) and Ref. 2 (E. Gudremon: Theory of Special Steels, ONTI, 1937) blisters are caused by the hydrogen diffusion in iron during pickling. Therefore the effect of the pickling

Card 1/3

S/133/61/000/003/013/014
A054/A033

The causes of blister formation ....

time on hot rolled strips before cold rolling, as well as the casting technology in general were investigated. The pickling assembly used in the tests consisted of four sulfuric acid baths with a concentration of 18, 18, 12 and 9 %, respectively. The pickling speed varied between 40 m/min and 10 m/min. At max. pickling speed holding time in bath 1.8 min and at min. pickling speed holding time in bath 7.2 min. the following results were obtained:

Heats	3773 3923	61079	4929	101144	51046
Sheets rejected on account of blisters, % ...	11.9 0.0	0.0 0.0	2.1 0.0	10.0 0.6	1.6 2.8

The tests show that neither the composition, nor the temperature of the bath affected blister formation, only the speed at which the strip passed through the bath, (at top speed about 9 times more blisters were formed than at low speed). However, blister formation cannot be eliminated entirely, even at low pickling speeds. In order to determine the effect of the pouring technology on the formation of non-metallic impurities and, consequently, of blisters, the method and the rate of casting were closely

Card 2/3

The causes of blister formation

followed. In the tests the metal was additionally impurified by chamotte powder or by not removing the slag. The greatest amount of blisters was found in sheets rolled from the lower part of slabs, made from bottom--poured metal. It is supposed that with bottom poured metal the lower part of the ingot is contaminated by impurties consisting of refractory material that has been dislodged and carried along , and of substances used in assembling the bottom board. When the pouring speed was increased, for instance by pouring two molds at the same time, blister formation was somewhat lower. In sheets from slabs produced by top-pouring the amount of siliceous inclusions and consequently blister formation was considerably less. As a result of the tests, refractory material of the highest quality should be used when casting low-carbon rimmed steel, which has to comply with particularly high standards, and the assembly of the bottom board has to be subjected to a very severe control. In this way blister formation could be reduced to a minimum. In the tests I. S. Marakhovskiy, I. L. Zlatkin, A. I. Marinov, A. I. Koshik, V. N. Lola, L. A. Zagadchenko, Engineers participated. There are 2 figures and 3 Soviet references.

ASSOSIATION: Zavod "Zaporozhstal'"("Zaporozhstal'" Plant)

Card 3/3

KSENZUK F.A.

S/133/61/000/012/001/006
A054/A127

AUTHORS: Soroko, L.N.; Filonov, V.A.; Ksenzuk, F.A.; Tsirlin, B.M.; Pavlishchev, V.B.; - Engineers

TITLE: Test rolling of stainless steel slabs on the "1200" mill with reelers in the furnace

PERIODICAL: Stal', no. 12, 1961, 1,092 - 1,096

TEXT: The possibility and the advantages of hot rolling stainless steel slabs with double-phase structure on the "1200" reversing mill of the Novolipetsk Plant were studied. The quality of surface and edges and the thickness differences (longitudinally and laterally) of the stainless steel slabs were compared for the "1200" mill and a hot-rolling continuous sheet mill. 22 slabs made of three heats of 1X18H9T (1Kh18N9T) and 2 steel grades of austenite-ferrite structure (A, 18 and B, 6 slabs), totalling 82 tons were rolled during the tests. The slabs were heated in a pusher-type furnace, fuelled by blast-furnace gas. The required heating time was originally fixed at 2 h 40 min, but actually this period varied within wide limits, due to delays in rolling the strip on the finishing stand. The required rolling temperature and heating quality could be en-

Card 1/3

S 133/61/000/012/001/006
A054/A127

Test rolling of stainless steel slabs on....

sured in the pusher-type furnace. When rolling on the roughing stand with 5 passes, the load on the motor increased, sometimes exceeding the maximum load rolling carbon steel slabs 1,000 - 1,500 amp. Further tests were carried out with 7 passes which yielded satisfactory rolling results of the test slabs on the roughing stand. On the finishing stand the load on the main motor did not exceed the limit, as a rule, only the value of the RMS current was some - what higher, reducing the rolling speed. It was found that some parts of the finishing stand are unsuitable for rolling stainless steel at a temperature at the rolling end of 900 - 920°C. The capacity of the drums is insufficient to coil up strips at a reduced temperature with a non-uniform thickness (up to 13 mm). The guides, the motor, the ball-bearings (with liquid friction) should also be adapted to the set conditions when rolling stainless steel instead of carbon steel. Another drawback of the process tested is that the strip ends, remaining outside the furnace, cool down quickly and this results in differences in strip-thickness, mainly over the strip lengths. On one sector 7 - 10 m long at the end of the strip the maximum deviations in thickness amount to 0.29 - 0.66 mm (at a rated thickness of the test strip of 3 mm), while these deviations amount only to 0.07 - 0.20 when rolling the same strips on the continuous mill. The thickness differences over the strip cross section are about the same as on

Card 2/3

Test rolling of stainless steel slabs on ....

the continuous mill (0.05 - 0.19 mm and 0.07 - 0.17 mm, respectively). Due to the considerable fluctuations in thickness and temperature along the strip it is not reduced uniformly over its entire length and this results in waviness and warping. It was possible to eliminate these defects at the expense of the rolling speed, and, therefore, of the output. The quality of the edges and the surface was better for strips rolled on the "1200" reversing mill with the coils heated in the furnace. There were no cracks at the edges and surface defects of mechanical origin (scratches, grooves) were fewer than in the conventional strips. Hydraulic scale removal was not applied as it was feared to reduce the temperature of the strip ends. Due to this, however, the mill scale on the strip was rolled into the surface and, therefore, it was found more expedient not to use this measure. There are 3 tables.

ASSOCIATION: Zavod "Zaporozhstal'" ("Zaporozhstal'" Plant)

YASHNIKOV, D.I., inzh.; TILIK, V.T., inzh.; TROSHCHENKOV, N.A., inzh.;
Prinimali uchastiye: SAMOYLOV, I.D., inzh.; VERBITSKIY, A.I.,
inzh.; KHASHIKOV, A.S., inzh.; BURBELO, V.G., inzh.; KSENZUK,
F.A., inzh.; MIRKINA, R.Ye., inzh.; GOL'DSHTEYN, F., inzh.;
BOYKO, S.A., inzh.

Reducing the consumption of tin in improving the microgeometry
of sheet iron surfaces. Stal' 21 no.9:862-864 S '61. (MIRA 14:9)

1. Zavod "Zaporozhstal'".
(Tinning) (Surfaces (Technology))

SOROKO, L.N., inzh.; FILONOV, V.A., inzh.; KSENZUK, F.A., inzh.; TSIRLIN, B.M., inzh.; PAVLISHCHEV, V.B., inzh. Prinimali uchastiye: BABAKOV, A.A.; BOROVSKIY, V.V.; YASHCHENKO, B.V.; LAZUTIN, A.G.; ZAVERYUKHA, A.Kh.; FRANTSENYUK, I.V.; ORLOVA, T.K.

Experimental rolling of stainless steel slabs on a 1200 mill with coilers in the furnace. Stal' 21 no.12:1092-1096 D '61. (MIRA 14:12)

1. Zavod "Zaporozhstal'" (for Soroko, Filonov, Ksenzuk, TSirlin, Pavlishchev).
(Rolling mills—Equipment and supplies)
(Steel, Stainless)

MEL'TSER, V.V., dotsent, kand.tekhn.nauk; PRATUSEVICH, A.Ye., inzh.; KSENZUK, F.A., inzh.; LEDKOV, V.G., inzh.

"Hot sheet rolling on continuous and semicontinuous mills" by M.M.Saf'ian. Reviewed by V.V.Mel'tser and others. Stal' 22 no.9:832-834 S '62. (MIRA 15:11)

1. Magnitogorskiy gornometallurgicheskiy institut i Magnitogorskiy metallurgicheskiy kombinat (for Mel'tser, Pratusevich). 2. Zavod "Zaporozhstal'" (for Ksenzuk, Ledkov).
(Rolling (Metalwork)) (Saf'ian, M.M.)

PHASE I BOOK EXPLOITATION SOV/6512

Ksenzuk, Feofan Andreyevich, and Nikolay Alekseyevich Troshchenkov

Prokatka i otdelka polosovoy nerzhaveyushchey stali (Rolling and Finishing of Stainless Steel Strips) Moscow, Metallurgizdat, 1963. 205 p. Errata slip inserted. 2500 copies printed.

Ed. of Publishing House: V. M. Gorobinchenko; Tech. Ed.: L. V. Dobuzhinskaya.

PURPOSE: This book is intended for engineering personnel, foremen, and skilled workmen of rolling shops which produce stainless steel sheets and plates. It may also be useful to designers of planning organizations and students at schools of higher education.

COVERAGE: The book describes the process of making stainless steel sheets and plates. Characteristics of hot and cold

Card 1/7

rolling mills for stainless steel are presented, and methods of preparation of ingots and slabs for rolling are reviewed. The book gives a classification of stainless steels with a description of their basic properties and the dependence of these properties on conditions of heat treatment and cold rolling. Modern technology of cold rolling, heat treatment, and pickling of strips is discussed. Various types of defects and methods of preventing them are outlined. No personalities are mentioned. There are 98 references, mostly Soviet.

TABLE OF CONTENTS:

S/133/63/000/001/008/011
A054/A126

AUTHORS: Chekmarev, A. P., Saf'yan, M. M., Kholodnyy, V. G., Soroko, L. N., Ksenzuk, P. A.

TITLE: Determination of the strip temperature during rolling on continuous thin strip mills

PERIODICAL: Stal', no. 1, 1963, 62 - 65

TEXT: A uniform structure of the strip with a grain size that ensures the required mechanical characteristics can only be obtained, if the end temperature of rolling is higher than A_{r_3} and the temperature of coiling is below 680°C. To determine the factors affecting the strip temperature during rolling, extensive tests were carried out at the zavod "Zaporozhstal'" ("Zaporozhstal'" Plant) on the 1,680 mm mill, covering the slab temperature from the time the product was in the heating section of the furnace onward through its passing the roughing mill (beyond the IV stand of this group), before the V finishing stand and beyond the X stand, by means of photoelectric pyrometers and also with a portable radiation tube at various spots between the stands of the finishing

Determination of the strip temperature...

group. The effects of the heat absorbed by the slab during heating, the cooling time, the cooling methods, the strip surface-to-volume ratio, the chemical composition of the steel, the strip thickness and the rolling rate on the strip temperature were studied. In the tests, stainless [1 X 18H 9 T (1Kh18N9T)] and carbon [C T.3KП (St.3kp)] grades were rolled to sizes varying between 3 x 1,030 and 6 x 1,232 mm. The temperature changes on the finishing stands, the effect of the rolling rate on the X stand and of strip thickness on the end temperature are shown in 8 graphs. At equal temperatures, strip thicknesses and rolling conditions, the end temperature of rolling for stainless steel strips is about 50 - 60°C higher than for carbon steel strips of the same dimensions. Increasing the rolling rate on the X stand by 10 m/min raises the end temperature of rolling for carbon steels by 2 - 3°C and for stainless steels by 5 - 6°C. By reference to the test results on the finishing stands and known equations used in temperature calculations the following empirical formulae were drawn up:

$$t = 815 + \frac{228(h-2)}{(h-2) + 2.57} \quad (3) \quad \text{for carbon steels and}$$

$$t = 920 + \frac{71(h-3)}{(h-3) + 0.76} \quad (4) \quad \text{for stainless steels,}$$

(where h = the thickness of the strip beyond the stand in question, in mm). The formulae can be used for rolling conditions similar to those on the 1,680 mm mill. The graphs show a satisfactory similarity of the test results and the data obtained by the above formulae. There are 3 sets of graphs and 2 tables.

Card 3/3

KSENZUK, F.A.; TSELOVAL'NIKOV, V.M.; TILIK, V.T.; TROSHCHENKOV, N.A.

Increasing the output of a continuous three-high cold rolling mill. Met.i gornorud. prom. no.6:27-29 N-D '63. (MIRA 18:1)

[redacted], Ye.A.; SAPKO, V.N.; GREBENYUK, V.P.; PIORO, E.Ch.; SHCHASTNYY, P.M.; KSENZUK, F.A.; SHIRINSKIY, D.I.; TOLSTYKH, V.I.

Rapid top pouring of rimmed steel into ribbed ingot molds. Metallurg 8 no.11:17-19 N '63. (MIRA 16:12)

ACCESSION NR: AT4014063 S/3072/63/000/000/0080/0088

AUTHOR: Kaensuk, F. A.; Troshchenko, N. A.; Tilik, V. T.

TITLE: Technological lubricants for cold rolling of sheet and thin plate

SOURCE: Fiz.-khim. zakonomernosti deystviya smazok pri obrabotke metallov davleniyem. Moscow, Izd-vo AN SSSR, 1963, 80-88

TOPIC TAGS: cold rolling, rolling mill, lubricant beef tallow, castor oil, palm oil, mineral oil, stainless steel

ABSTRACT: The usually applied 2% emulsion of standard emulsol for cold rolling of sheets is not satisfactory, causing high contact pressure between metal and rolls, enhancing formation of carbon deposit and thus preventing eventual tinning, and not permitting rolling of sheets thinner than 0.25 mm. Therefore, other technological lubricants have been tried, such as refined cottonseed oil, hydrogenated sperm oil, palm oil, beef tallow, castor oil, and hydrogenated vegetable oils. Best results in rolling have been obtained with beef tallow and castor oil. However, beef tallow has caused clogging of drain pipes, due to its high melting point. For the same reason hydrogenated sperm oil has proven to be inadequate. Cotton-

Card 1/4

ACCESSION NR: AT4014063

seed oil has been ruled out for its high cost. Palm oil and castor oil have been accepted as best and have been the basic lubricants for sheet rolling during the last three years. However, these oils also have substantial deficiencies. Palm oil is oxidized considerably after storage times above six months, and consequently loses its effectiveness as lubricant; also, it is an imported item. With castor oil, it is difficult to obtain uniform sheet thickness in rolling; furthermore, it is a scarce product. Hydrogenated sunflower-seed oil has been proposed and tried as lubricant for sheet rolling (lubricant PKS-1) and has been found to be nearly equivalent to palm oil. It has been found that by application of effective technological lubricants on one-unit rolling mills, the production can be raised by 30-40% because of reduction of number of passes from 3 to 2. On three-unit rolling mills, rolling of sheets can be done down to a thickness of 0.20 to 0.22 mm; also, an intermediate anneal can be abolished in rolling of No.28 and 32 sheets. Furthermore, it has been found that failures of rolls and bearings are reduced, and the quality output of tinplate is raised up to 95%. However, lubricant PKS-1 is made from raw food material. Therefore, since 1960 a search for new technological

Card 2/4

ACCESSION NR: AT4014063

lubricants has been under way. Mineral oils of various viscosities, mineral oils with addition of different fatty acids and vegetable oils, and, for comparison, pure vegetable oils have been tested on a one-unit rolling mill. It has been found that lubricants of higher viscosity correspond to higher stretching coefficients in rolling. The best of the tested mineral lubricants has been cylinder oil No.6. However, difficulties have been experienced in spreading this viscous lubricant on the work. Therefore, preference has been given to cylinder oil No.24 (viscosin), which is equivalent to PKS-1 with respect to stretching of sheet and power requirement but approximately 40 times less expensive. However, the surface quality of sheets has been different when using viscosin or PKS-1. With PKS-1 a shiny smooth surface has been produced, while with viscosin the finished surface has been dull, with white spots from rolled-in oil which sometimes made complete degreasing difficult. It has been concluded that high viscosity mineral oils can be advantageously used as technological lubricants in cold rolling of thin sheets and plates, instead of expensive oils of vegetable or animal origin. For manufacture of cold rolled stainless sheets of 0.8-1.4 mm thickness, strips 1.5-1.8 mm thick have been subjected to intermediate heat treatment and pickling, and then rolled to final thickness. Spindle oil has been used as the lubricant. Under such conditions a great amount of rework was needed and the sheet quality was low.

Card 3/4

ACCESSION NR: AT4014003

Instead of the above procedure, cold rolling of stainless steel strips of 0.7;0.8; 0.9;1.0;1.2;1.3; and 1.4 mm from prerolled sheet 3 mm thick without intermediate heat treatment has been adopted. Such rolling has been made possible by using polished rolls and P-28 oil and viscosin as lubricants. Total reduction of sheet thickness without preliminary heating has been increased from 50-55 to 77%, not only for austenitic but also for steels of lower plasticity, such as austenitic-ferritic, austenitic-martensitic, and ferritic-martensitic stainless steels without occurrence of edge tearing. The number of passes for rolling 0.8 and 1.0 mm thick strips has been reduced from 14 and 12 to 11 and 9, respectively; surface quality has improved, and driving power and pressure on rolls have not been excessive. Production has been increased by 70%, by applying higher speed with fewer passes. For rolling of 1.5-2.5 thick stainless strips, spindle oil has been retained as the lubricant. The use of high viscosity mineral lubricants, such as viscosin, has proved adequate also for cold rolling of thin (0.35 mm) transformer steel sheets. Orig. art. has: 11 tables.

SUBMITTED: 00 DATE ACQ: 19Dec64 ENCL: 00

SUB CODE: MM, IE NO REF SOV: 004 OTHER: 000

Card 4/4

KSENZUK, F.A., inzh.; KHUDAS, A.L., inzh.; TROSHCHENKOV, N.A., inzh.; GAMERSHTEYN, V.A., inzh.; AKIMOV, E.P., inzh.; IOFFE, M.M., inzh.; VEKLICH, M.I., inzh.; ANTIPENKO, V.G., inzh.; TILIK, V.T., inzh.; FILONOV, V.A., inzh. [deceased]; BORISENKO, V.G., inzh.

At the "Zaporozhstal'" plant. Stal' 23 no.6:554, 562, 572, 575 Je '63. (MIRA 16:10)

SOV/6512

PHASE I BOOK EXPLOITATION

Ksenzuk, Feofan Andreyevich, and Nikolay Alekseyevich Troshchenkov

Prokatka i otdelka polosovoy nerzhaveyushchey stali (Rolling and Finishing of Stainless Steel Strips) Moscow, Metallurgizdat, 1963. 205 p. Errata slip inserted. 2500 copies printed.

Ed. of Publishing House: V. M. Gorobinchenko; Tech. Ed.: L. V. Dobuzhinskaya.

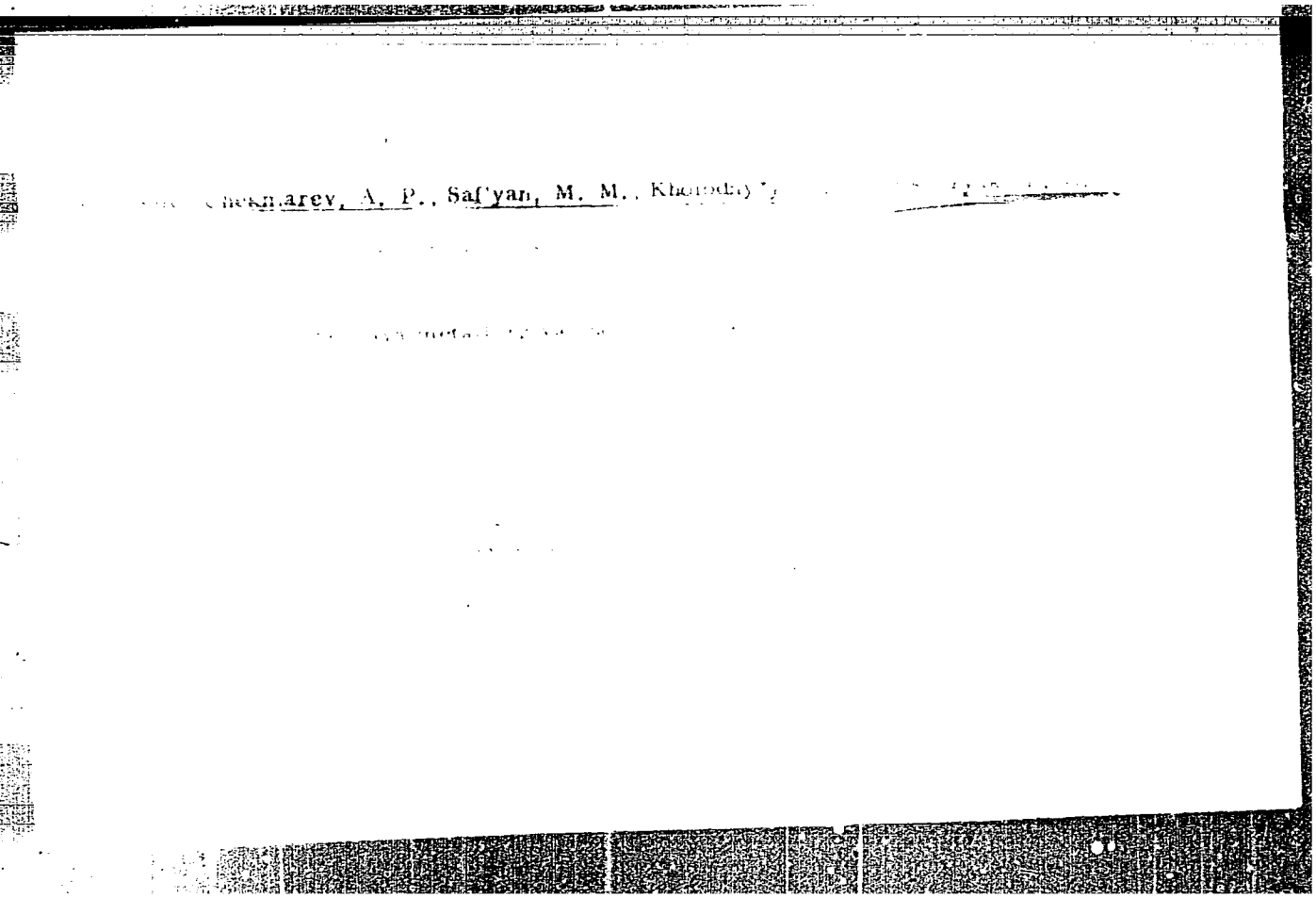
PURPOSE: This book is intended for engineering personnel, foremen, and skilled workmen of rolling shops which produce stainless steel sheets and plates. It may also be useful to designers of planning organizations and students at schools of higher education.

COVERAGE: The book describes the process of making stainless steel sheets and plates. Characteristics of hot and cold

Card 1/7

rolling mills for stainless steel are presented, and methods of preparation of ingots and slabs for rolling are reviewed. The book gives a classification of stainless steels with a description of their basic properties and the dependence of these properties on conditions of heat treatment and cold rolling. Modern technology of cold rolling, heat treatment, and pickling of strips is discussed. Various types of defects and methods of preventing them are outlined. No personalities are mentioned. There are 98 references, mostly Soviet.

TABLE OF CONTENTS:



has: 3 graphs, 3 tables, and 5 [illegible]

[illegible]rovsk Metallurgical

GAMERSHTEYN, V.A.; KLEYZUK, F.A.

Introducing the technology for rolling corrugated sections of low-alloyed steel. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.4:3-4 Ap '64. (MIRA 17:6)

KSENZUK, F.A., inzh.; MIRENSKIY, Yu.M., inzh.; TROSHCHENKOV, N.A., inzh.

Changes in steel properties depending on the degree of reduction during coil straightening. Stal' 24 no.1:56-58 Ja '64. (MIRA 17:2)

1. Zavod "Zaporozhstal'".

KSENZUK, Feofan Andreyevich; KHUDAS, Aleksandr Luk'yanovich; VLADIMIROV, Yu.V., red.

[Operator of continuous hot rolling sheet mills] Val'tsovshchik nepreryvnykh listovykh stanov goriachei prokatki. Moskva, Metallurgiia, 1965. 127 p. (MIRA 18:7)

TSELUYKO, Yu.I.; SADAKH, A.F.; BOBOSHKO, V.S.; DODOKA, V.G.; LIKHININ, A.I.; Prinimali uchastiye: PEKKER, A.N.; LOLA, V.N.; KSENZUK, F.A.; BONDAREV, L.V.; REZNIKOV, Yu.N.; KLEKL', A.E.

Study of the heating of metal in a holding furnace. Stal' 25 no.5:462-464 My '65. (MIRA 18:6)

1. Nauchno-issledovatel'skiy i proyektnyy institut metallurgicheskoy promyshlennosti.

KSENZUK, F.A., inzh.; AVRAMENKO, I.N., inzh.; MIRENSKIY, Yu.M.; TROSHCHENKOV, N.A.

Relation between the degree of deformation and the speed and tension during the straightening of sheet steel for automobiles. Stal' 25 no.7:632-634 Jl '65. (MIRA 18:7)

1. Zavod "Zaporozhstal'".

ACC NR: AT6012089 (N) SOURCE CODE: UR/3177/65/021/000/0038/0052

AUTHOR: Chekmarev, A. P. (Academician AN UkrSSR); Saf'yan, M. M. (Professor); Meleshko, V. I. (Candidate of technical sciences); Prokof'yev, V. I. (Candidate of technical sciences); Avramenko, I. N. (Engineer); Dodoka, V. G. (Engineer); Kaenzuk, F. A. (Engineer); Kudin, D. P. (Engineer); Lola, V. N. (Engineer); Movshovich, V. S. (Engineer); Pavlishchev, V. B. (Engineer); Soroko, L. N. (Engineer); Sukhobrus, Ye. P. (Engineer); Kholodnyy, V. P. (Engineer); Yudin, M. I. (Engineer)

ORG: none

TITLE: Improvements in the techniques of production of Kh18N10T cold-rolled wide-strip steel at the Zaporozhstal' Plant

SOURCE: Dnepropetrovsk. Institut chernoy metallurgii. Trudy, v. 21, 1965. Prokatnoye proizvodstvo (Welding production), 38-52

TOPIC TAGS: stainless steel, bright stock lubricant, metal rolling, sheet metal, industrial plant / Kh18N10T stainless steel, P-28 bright stock lubricant

ABSTRACT: On increasing to 11.8 tons from the previous 10.3 tons the weight of the ingots

Card 1/2

L 41274-66

ACC NR: AT6012089

of Kh18N10T stainless steel used to produce 1000 mm wide sheets, the Zaporozhstal' Plant found it possible to reduce by 40-50 kg/mm^2 the wastage of metal during slabbing. Other innovations introduced in recent years at this plant include: fettling, flame scarfing and planing of ingot surfaces so as to eliminate defects of metallurgical origin prior to slabbing. These measures, along with improvements in the ingot reheating regime, have made it possible to increase the productivity of slabbing mills by 15-20%. The ingots themselves are cone-shaped in order to optimize the conditions of crystallization of the molten metal. After trimming and heating to 1050-1300°C the slabs proceed to a continuous strip mill where they are rolled into 1000 mm wide strip. By introducing the cold rolling of this strip in a reversible four-high mill with a reduction of 85% and by abandoning the practice of intermediate quenching during the production of 0.8-1.4 mm thick sheets rolled from 3.0 mm thick stock, using P-28 bright stock (highly viscous mineral oil) as the lubricant, using highly polished rolls, and increasing the convexity of the rolls to offset the increase in roll pressure, and thus streamlining the rolling techniques to an extent at which it became possible to roll in 13 passes 0.8 mm thick strip without overloading the rolls and main drive, the Zaporozhstal' Plant has found it possible to increase by 81% the productivity of its sheet mill and by 180%, the productivity of its reversible cold-rolling mill. The annual savings produced by these innovations amount to: for the slabbing-mill shop, 162,000 rubles; for the sheet-mill shop, 91,000 rubles; for the cold rolling shop, 719,000 rubles. Orig. art. has: 3 figures, 9 tables.

SUB CODE: 13, 11/ SUBM DATE: none/ ORIG REF: 015

Card 2/2

KRUPINSKIY, B., prof. (Pol'skaya Narodnaya Respublika); BROMOVICH, R., inzh. (Pol'skaya Narodnaya Respublika); KSHANOVSKIY, S., inzh. (Pol[redacted] Narodnaya Respublika)

Effect of ventilation on the selection of the mine model. Ugol' 36 no.12:48-54 D '61. (MIRA 14:12)

(Mine ventilation)